



Combined Project Information Documents / Integrated Safeguards Datasheet (PID/ISDS)

Appraisal Stage | Date Prepared/Updated: 18-Dec-2019 | Report No: PIDISDSA24466

**BASIC INFORMATION****A. Basic Project Data**

Country Mexico	Project ID P164389	Project Name Water Security and Resilience for the Valley of Mexico (PROSEGHIR)	Parent Project ID (if any)
Region LATIN AMERICA AND CARIBBEAN	Estimated Appraisal Date 08-Jan-2018	Estimated Board Date 27-Feb-2020	Practice Area (Lead) Water
Financing Instrument Investment Project Financing	Borrower(s) Secretaria de Hacienda y Credito Publico	Implementing Agency CONAGUA	

Proposed Development Objective(s)

The objectives of the Project are to improve the reliability of the Cutzamala System and strengthen the management of groundwater resources in the Valley of Mexico

Components

Improving Cutzamala's Infrastructure Resilience
Groundwater Management and recharge pilot infrastructure in the Valley of Mexico
Institutional Strengthening and Project Management

PROJECT FINANCING DATA (US\$, Millions)**SUMMARY**

Total Project Cost	120.00
Total Financing	120.00
of which IBRD/IDA	120.00
Financing Gap	0.00

DETAILS**World Bank Group Financing**

International Bank for Reconstruction and Development (IBRD)	120.00
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Environmental Assessment Category

B-Partial Assessment

Decision

The review did authorize the team to appraise and negotiate

Other Decision (as needed)

B. Introduction and Context

Country Context

- 1. Mexico is an upper-middle income country with a diversified economy, but moderate economic growth has limited significant poverty reduction and income convergence.** Growth averaged about 2 percent between 1980 and 2018, or close to 1 percent on a per capita basis. The country's per capita gross domestic product (GDP) stands at 34 percent of U.S. per capita GDP, compared with 49 percent back in 1980. On average, over the last 25 years, total factor productivity (TFP) growth has been negative. The official multidimensional poverty rate fell from 44.4 percent of the population in 2016 to 41.9 percent in 2018, while the share of the population living below the monetary poverty line in 2018 was 48.8 percent, close to the level observed in 2008. Moreover, regional inequality is high. After a decline in 2010–14, the annualized growth rate of median per capita income was 1.8 percent in 2016–18, still well below the average in the Latin America and the Caribbean (LAC) region.
- 2. Public investment has been low, and the gaps in infrastructure have been widening over the last 30 years, hampering broad-based income growth.** Public investment reached an average of only 3.2 percent of GDP between 2008 and 2015.¹ Excluding Pemex, the share would be only 1.7 percent of GDP in average over the last years. This falls short of rapidly growing Latin American countries and emerging economies that spend above 5 percent of GDP in this area. Gaps have been widening across sectors, including transport, energy, housing and urban infrastructure, and water.
- 3. Water infrastructure is particularly affected by underinvestment with highly negative potential consequences to the welfare of the population and the economy.** More than 35 million Mexicans have limited access to water or receive low-quality water services. More than a hundred of the country's 731 watersheds face severe shortages, and the number of overexploited aquifers tripled between 1975 and 2013.² Overall, water availability per capita has reduced drastically, from 18,035 to 3,982 m³/inhabitant per year between 1950 and 2013.
- 4. The deceleration in economic activity underway since Q2 2018 continued in 2019, but Mexico maintains a prudent macroeconomic policy framework.** On the demand side, despite real wage growth and strong remittance inflows in 2019, private consumption growth dipped to its slowest pace in the last years. Dragged by wage and other recurrent spending cuts in public administration, government consumption also slowed significantly over the first half of 2019. A degree of uncertainty around the trajectory of some of the new

¹ Infralata

² Overexploited aquifers (where groundwater provides more than 65 percent of the volume required by cities) increased from 32 in 1975 to 126 in 2013, out of a total of 653.



administration's sectoral policies, slowed investment further, which had been weak since 2016. In this context, inflation pressures continue to subside even with the significant minimum wage increase enacted at the beginning of the year. The policy rate has helped the local currency to hover below 20 pesos per dollar, as Mexico remains attractive to portfolio investors, but with less positive effects for fixed capital formation. Fiscal consolidation enabled the achievement of public debt stabilization. Mexico led emerging markets in stabilizing and then reducing public debt as a share of GDP, which stood at 53.6 percent in 2018 for gross public-sector debt (44.9 percent on a net basis as reported by the government). Expenditure rationalization measures plus the use its revenue stabilization fund broadly enable the authorities to compensate for lower than expected revenue collection during 2019. Adherence to fiscal prudence is expected to continue as the administration presented its 2020 budget with a primary surplus and an overall fiscal deficit in line with the objective of stabilizing the public debt-to-GDP ratio. The budget emphasizes categorical social programs (minimum pension, student grants and stipends for youth) and a moderate public investment increase, which are financed by program consolidation and cuts in public wages, goods and services, and discretionary transfers to states.

Sectoral and Institutional Context

5. Water stress is a critical vulnerability for Mexico, including in the context of climate change. As the country's population has grown, water availability per capita has fallen sharply, dropping from 18,035 m³ per year in 1950 to 3,392 m³ per year in 2015. The National Water Commission (*Comisión Nacional del Agua*, CONAGUA) projects that water resources per capita will reach 3,250 m³ by 2030.³ More than 35 million Mexicans have limited access to water or receive low-quality water services. Moreover, rising global temperatures and shifting precipitation patterns are already affecting the country's hydrological cycles, and the increasing strain on the country's scarce water resources is leading to the overexploitation of groundwater and productivity losses. Groundwater provides more than 65 percent of all water used by Mexican cities. Pumping out underground water causes land subsidence (or sinking), which makes flooding worse and significant structural damages to urban infrastructures. For example, subsidence levels (sinking) in Mexico City are observed over 30 centimeters per year. The economic costs of water depletion and degradation have increased over the last 15 years.

6. The water sector would require significant, innovative and complex investments, together with increased institutional capacity, to provide water with sustainability to the population. Limited investment in key water management infrastructure is exposing Mexico to higher climate and non-climatic related risks while increasing opportunity costs of underinvestment. Mexico has a large network of dams with 150km³ stored in 667 facilities. However, many of them were built more than 50 years ago, and increased investment in maintenance and rehabilitation are pressing to ensure their continued operation, protect local populations from potential dam failures, improve energy efficiency of hydropower generation, and provide a more reliable service to the population. Moreover, tightening fiscal space is constraining investment. The authorities are open to public-private investments in the sector, particularly downstream in the sector. But an ambitious program to strengthening the planning, funding and implementation functions is critical for that and enhance the delivery capacity of the water system and infrastructure in the country.

7. The Valley of Mexico region has one of the highest water stress⁴ levels of the country. This area of the country generates an estimated 38 percent of Mexico's GDP (including the Valley of México Metropolitan Area - VMMA and Toluca Metropolitan Area -TMA). Together, these two metropolitan areas account for a population

³ CONAGUA, 2016. "Numeragua Mexico." Secretaría de Medio Ambiente y Recursos Naturales and Comisión Nacional del Agua.

⁴ Water stress is calculated by comparing the percentage of water allocated to the amount of renewable water. Valley of Mexico has the highest water stress index in Mexico; 140%, meaning that it uses 40% more water than what is renewed.



of almost 23.4 million people and host a diverse range of economic activities, from manufacturing to agricultural farmland, that require water for both consumption and economic development. Nevertheless, deficient water services, compounded by unreliable bulk water supply, impose economic costs on households and firms equivalent to an estimated 1 percent of the GDP of the VMMA.⁵ With an estimated population of 21.5 million, the VMMA is considered the most populated urban center in Latin America, and currently demands a mean water supply of 63 cubic meters per second (m³/s)⁶ for human consumption and industrial and commercial needs and an estimated supply of 11 m³/s for irrigation purpose. The TMA houses a population of approximately 1.9 million people with a mean water demand of 4.7 m³/s.⁷ The bulk water supply and water service provision for these two areas constitute a major challenge for the country. The Cutzamala System plays an essential role in the supply of water for the VMMA and TMA. Furthermore, many of the Cutzamala System's dams, which date from the mid-1900s, require rehabilitation and safety improvements to address critical dam safety issues. The Cutzamala System is an energy intensive and energy-inefficient system. The VMMA and TMA depend on the Cutzamala System as a main water provider, but also as a buffer for water shocks, including seismic events. Multiple federal and local entities are involved in the management of the Cutzamala System. Additionally, the VMMA relies on the pumping of groundwater from aquifers for human consumption, industrial and commercial use, and irrigated agriculture. The ongoing overdraft of groundwater in the VMMA has resulted in significant land subsidence, damaging urban infrastructure and posing challenges to water supply.

C. Proposed Development Objective(s)

Development Objective(s) (From PAD)

8. The objectives of the Project are to improve the reliability⁸ of the Cutzamala System and strengthen the management⁹ of groundwater resources in the Valley of Mexico.

Key Results

9. **Expected results include:**

- i. Improved reliability of the Cutzamala System for the delivery of water to the VMMA and the TMA;
- ii. Annual reporting on groundwater information (quantity and quality) being used for decision making; and
- iii. One managed aquifer recharge pilot operationalized.

D. Project Description

10. **Component 1: Improving Energy Efficiency and Resilience of the Cutzamala System (US\$60 million, all of which IBRD).** The objectives of this Component are to: (i) strengthen information, monitoring, and control systems for the effective operation of the Cutzamala System, and (ii) improve the safety and reliability of the infrastructure of the Cutzamala System for the delivery of water to the VMMA and the TMA. These activities will

⁵ World Bank, 2013, *Agua urbana en el Valle de México – ¿un camino verde para mañana?*

⁶ CONAGUA-World Bank, 2015, Cutzamala Integral Diagnostic.

⁷ Idém

⁸ Reliability is defined as the percentage of days in which the system successfully supplies the target delivery to Mexico City. This is a widely used metric for the reliability of bulk water systems. Current reliability of the Cutzamala System is estimated at 82 percent (World Bank Decision Tree report 2017).

⁹ This includes groundwater monitoring and aquifer recharge.



support Cutzamala System operators in adapting to changing climate conditions, including droughts and other climate change-induced shocks to water quality and availability, and thus build resilience to climate change by improving data monitoring and collection systems of these risks. The dam-related activities will improve the system's ability to control climate change-induced flooding.

11. Component 2: Groundwater Management and Recharge Pilot infrastructure in the Valley of Mexico (US\$54 million, all of which IBRD). The objectives of this component are: (i) to improve the availability and timeliness of information for groundwater management through an information platform called Aquifer Observatory, and (ii) to support pilot initiatives for managed aquifer recharge. The development of the Aquifer Observatory will provide information for better management of groundwater resources, thus contributing to climate change adaptation. These activities come as a direct response to the September 2017 earthquake and will strengthen resilience to future earthquakes events.

12. Component 3: Institutional Strengthening and Project Management (US\$5.7 million, all of which IBRD). The objective of this component is to strengthen the capacity of the institutions involved in Project implementation and ensure financing of the Project Implementation Unit (PIU). This includes, inter alia: (a) supporting the carrying out of Project management activities by the PIU; and (ii) carrying out of capacity building to strengthen water infrastructure operation; groundwater management; citizen engagement mechanisms, including outreach and dissemination activities; and leadership and technical training for female staff and gender training for CONAGUA's staff.

E. Implementation

Institutional and Implementation Arrangements

13. The Project will be implemented by CONAGUA. CONAGUA has longstanding experience in the implementation of World Bank projects.¹⁰ The newly created¹¹ *Banco del Bienestar*, formerly National Savings and Financial Services Bank (*Banco del Ahorro Nacional y Servicios Financieros*, BANSEFI) will act as the financial agent. BANSEFI had longstanding experience with World Bank projects supervising fiduciary aspects, including financial management and procurement.¹² A Project Implementation Unit (PIU) will be formed within CONAGUA, including technical staff from OCAVM, and will be responsible for the coordination of the different activities between the relevant CONAGUA units and with other institutions. The PIU will provide technical and administrative support to ensure full development of each Project activity, ensure compliance with the applicable Bank environmental and social safeguard policies, and be responsible for monitoring and evaluation (M&E).

F. Project location and Salient physical characteristics relevant to the safeguard analysis (if known)

Component 1 will be implemented in the Cutzamala System and its sub-basins in the States of Mexico and Michoacán. The topography in the area is characterized by hills, mountain ranges, deep ravines and relatively extensive valleys. Currently, there is an important deterioration of water quality in the sub-basins due to deficient sanitation infrastructure and direct discharge of untreated wastewater into watercourses. The main river channels and the tributaries do not have a vegetation cover that would contribute to the

¹⁰ Most recently implemented projects by CONAGUA include: Modernization of the Water and Sanitation Sector Technical Assistance Project, P091695 (PATME – closed in 2008), the Water Utilities Efficiency Improvement Project, P121195 (PROME – closed in 2017) and the Modernization of the National Meteorological Service Project (MOMET – closed in 2016).

¹¹ Wellness Bank was created by Decree on July 19th, 2019; http://dof.gob.mx/nota_detalle.php?codigo=5566165&fecha=19/07/2019

¹² It should be noted that SACMEX does not form part of the institutional arrangements of, nor have a formal role in, this Project.



retention of sediments and nutrients. Predominant soils (andosols) are characterized by very low bulk density and, being devoid of vegetation and located on slopes and hills, are highly vulnerable to water and wind erosion. Overall, the Cutzamala System faces important environmental challenges, including a process of overall degradation of the ecosystems due to varied anthropogenic activities. Consequently, it is necessary to optimize the use of water and stop the processes of water and soil contamination, soil degradation and deterioration of the adjacent natural habitats. The latter include two federal Protected Natural Areas (APN): The Monarch Butterfly Biosphere Reserve and Valle de Bravo, Malacatepec, Tilostoc and Temascaltepec River Basins Protected Natural Resources Area. Regarding social aspects, Mazahua indigenous people are present in the Project area. Component 2 will be developed in the lowest and most horizontal plain of the Valley of Mexico, which is highly urbanized and corresponds to the surface occupied by four large lakes and surrounding hillside plots. The groundwater in this basin has been exploited for decades for drinking water supply and water supply for agricultural and industrial activities, and the extraction and demand are increasing. Currently, 68 percent of the water used in the Valley of Mexico is pumped from groundwater leading to aquifer overexploitation and differential land subsidence and damage to existing infrastructure. This situation is aggravated by loss of permeable surface and reduction of vegetation and recharge zones due to expansion of the urban area. Project activities will mitigate impacts of overexploitation of the aquifers and contribute to improve the reliability of the Cutzamala System, among other benefits. A full description of the Cutzamala's System environmental aspects is available at <http://documentos.bancomundial.org/curated/es/309801468189248037/Cutzamala-Diagnostico-integral>

G. Environmental and Social Safeguards Specialists on the Team

Tuuli Johanna Bernardini, Environmental Specialist

Dorothee Georg, Social Specialist

Diacono Raul Vera Hernandez, Environmental Specialist

SAFEGUARD POLICIES THAT MIGHT APPLY

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	The Project is classified as Environmental Category B. The expected negative environmental and social impacts are relatively limited, and rather standard mitigation measures are available to manage them in line with the mitigation hierarchy. The possible negative environmental impacts of the Project are associated with activities and works to be carried out in areas with existing water abstraction, storage (dams), and conveyance infrastructure, and in two



pilot sites for recharging the aquifer with treated wastewater. The works involve the instrumentation, civil works and mechanical equipment for the rehabilitation of the Cutzamala System Dams; as well as upgrading of existing wastewater treatment plants to improve wastewater effluent quality by incorporating advanced treatment modules to comply with Mexican water quality discharge standards for aquifer recharge; aquifer recharge wells; and conveyance infrastructure from the wastewater treatment plants (WWTPs) to the recharge wells. The identified environmental risks and potential negative impacts include generation of dust, gases and noise on the atmosphere, derived from the movement of materials and operation of machinery and equipment and contamination of soil and water due to improper handling of chemicals, construction waste and/or hazardous waste (storage, transport and final disposal). The identified occupational health and safety (OHS) risks and potential impacts include damage to health and physical integrity of Project workers resulting from improper handling of chemical products and waste; accidents due to inadequate traffic signals and safety signs on work sites; and OHS issues due to lack of personal protective equipment or training in the use of tools and equipment.

All these works and activities also have positive environmental and social impacts and support the efficient use of water resources in the area. The Project includes works and activities for which the corresponding detailed engineering designs will be developed during Project implementation, and their realization may involve construction procedures and technologies that remain to be defined. Consequently, CONAGUA has prepared, consulted and disclosed an Environmental and Social Management Framework (ESMF), which includes an exclusion list, selection and evaluation procedure to identify, evaluate and manage the possible impacts and environmental and social risks under each contract. Both CONAGUA and the works' contractors will apply the ESMF that covers the environmental and social requirements for the contractors that will be included in the bidding documents and



contracts. The ESMF includes the selection of works and the assignment of environmental and social obligations in accordance with the applicable national legislation e.g. on environment, health and safety at work. It also proposes a set of good environmental, safety and hygiene practices to be applied in different types of activities. Likewise, the ESMF includes the establishment of efficient mechanisms for the reception and attention of potential complaints and other feedback from stakeholders during the development of the works.

The supervision of Project activities will include evaluation of compliance with environmental, social, health and safety and cultural requirements. CONAGUA and the Project contractors will be responsible for the environmental, social and health and safety (ESHS) management. Strong environmental clauses in terms of reference and contracts will indicate the obligation of the participating contractors to have the necessary management capacity related to ESHS aspects.

The ESMF was consulted on December 7 and 8, 2017 and the results of these consultations were reflected in the ESMF. The ESMF was disclosed at the CONAGUA and World Bank external websites on January 15, 2018, and the updated version in December 2019 to reflect the reduced scope of the Project investments with the final loan amount of US\$ 120 million instead of US\$ 200 million.

Performance Standards for Private Sector Activities OP/BP 4.03	No	OP 4.03 is not triggered as the Project includes no private sector activity as defined by the policy.
Natural Habitats OP/BP 4.04	Yes	<p>In the area of influence of Component 1 in the Cutzamala System there are two ANPs of federal responsibility, the Monarch Butterfly Biosphere Reserve and the Valle de Bravo, Malacatepec, Tilostoc and Temascaltepec River Basins Protected Natural Resources Area, which present severe problems of contamination and deterioration of natural habitats derived from unplanned anthropogenic activities that have been carried out for years on the site.</p> <p>The ongoing environmental degradation of Cutzamala sub-basins can lead to a loss of</p>



biodiversity in the Monarch Butterfly Biosphere Reserve, which protects key overwintering sites for a billion monarch butterflies in 80 percent of the area of the sub-basins.

Some of the Project's brownfield works and activities will be carried out within the two referred ANPs and their vicinity. The ESMF stipulates that these works and activities need to cover specific measures to avoid and mitigate risks and negative impacts in the ANPs, including additional monitoring actions as pertinent, and to comply with their existing management plans.

In relation to the Valley of Mexico, one of the two possible pilot sites for groundwater recharge wells is located in the "Cerro de la Estrella" National Park, yet it no longer meets the criteria established for an ANP and is subject to revocation of its status as such. In every case, any works in the area will need to secure minimum risk and negative impact in its remanent natural value.

Forests OP/BP 4.36	No	OP 4.36 is not triggered as the Project does not foresee activities that will affect forests and/or forest-dependent communities.
Pest Management OP 4.09	No	OP 4.09 is not triggered as no Project activity will include pest management or procurement of pesticides or other agrochemicals.
Physical Cultural Resources OP/BP 4.11	Yes	OP 4.11 is triggered for precautionary purposes. The Project will not impact any known physical cultural resource, and based on a preliminary assessment, it is unlikely that physical cultural resources would be found in the areas directly affected by the Project works. However, the ESMF includes guidance and procedures for any potential chance finds.
Indigenous Peoples OP/BP 4.10	Yes	The social assessment during preparation indicates the presence of indigenous peoples, Mazahuas, in the areas of influence of the project. These communities will not be directly negatively impacted by the Project, but rather benefit from the project's results. The client developed a Indigenous Peoples Planning Framework (IPPF) to ensure the inclusion of the IP groups in a culturally appropriate manner. Social inclusion aspects were also integrated into project design.



Two consultations for safeguards instruments (including the IPPF) were held:

1. Urban Area (Valley of Mexico). December 7, 2017. The workshop was held in Delegación Gustavo A. Madero, Mexico City. Participants included local leaders, civil society leaders, academics, researchers, users, neighbors, state and federal government officials.

2. Rural area (Cutzamala sub-basins). December 8, 2017. Participants included local leaders; Mazahua (Indigenous peoples group present in the intervention area), civil society leaders, academics, researchers, users, neighbors, state and federal government officials.

While the Project is not expected to have a negative impacts, the Mazahua requested that the government: (i) strengthen citizen participation mechanisms and mainstream communication and outreach efforts to indigenous communities, (ii) allocate the equivalent of 5 percent of the total cost of works and infrastructure for the implementation of infrastructure and community services, and (iii) ensure the continuation of the integrated basin management.

The IPPF was consulted in two workshops with relevant stakeholders on December 7 and 8, 2017. Feedback and a summary of the consultation process and issues raised by the Indigenous Peoples leaders were integrated in the IPPF. It was disclosed on CONAGUA's and the WB's website on January 15, 2018, and the updated version in December 2019 to reflect the reduced scope of the Project investments with the final loan amount of US\$ 120 million instead of US\$ 200 million.

Involuntary Resettlement OP/BP 4.12

Yes

The Project is not expected to result in involuntary land acquisition, resettlement, and/or displacement of people irrespective of whether they are indigenous or non-indigenous. The Project will only be implemented on federal lands within a 50-meter wide strip of CONAGUA property, and pilot projects under component 2.2 will focus on the improvement and maintenance of existing infrastructures. However, OP 4.12 on Involuntary Resettlement is triggered as a precautionary measure, in the unlikely case that land acquisition or resettlement will be needed. A Resettlement Policy Framework (RPF) was



prepared by the client and establishes guidance for the preparation of specific Resettlement Action Plans in cases involuntary resettlement is needed. Furthermore, to further mitigate the risk of resettlement impacts under component 2, all TORs for studies financed under this Project will include: (i) an analysis of the potential downstream effects; (ii) the identification of existing risks, if any; and (iii) development and implementation of a Resettlement Plan in line with the RPF.

The RPF was consulted in two workshops with relevant stakeholders on December 7 and 8, 2017. Feedback was integrated and the RPF was disclosed on CONAGUA's and the WB's website on January 15, 2018, and the updated version in December 2019.

The Project activates OP 4.37 on Safety of Dams as it will support CONAGUA's ongoing dam safety efforts, through the following activities for the Cutzamala System Dams: (i) instrumentation of the dams (under Sub-component 1.1); (ii) civil works, electrical and mechanical equipment for the dam rehabilitation (under Sub-Component 1.2); and (iii) the development of operational and maintenance plans and emergency preparedness plans for the dams (under Sub-Component 1.2). Additionally, an independent panel of experts will have the following responsibilities: (i) reviewing the risk-based dam safety assessments, safety inspection reports, operations and maintenance plans and emergency preparedness plans, all for the Cutzamala System Dams; (ii) advising on the design and implementation of rehabilitation works required for the Cutzamala System Dams; and (iii) reviewing the investigation, design and implementation of high-hazard cases involving significant and complex remedial works.

To date, CONAGUA has established national dam safety standards within the framework of the National Water Law and the Federal Law on Metrology and Standardization and its Regulations. The two main norms regarding dam safety operation were published in the Official Journal of the Federation in 2015: NMX-AA-175-SCFI-2015: Safe Dam Operation – Part 1 – Risk Analysis and Classification of Dams and in 2016: NMX-AA-175-

Safety of Dams OP/BP 4.37

Yes



SCFI-2015: Safe Dam Operation – Part 2 – Safety Inspections. A third norm, establishing the requirements for the preparation and implementation of an Emergency Action Plan for each dam, was published in 2018: NMX-AA-175/3-SCFI-2017: Safe Dam Operation – Part 3 – Emergency Action Plan.

CONAGUA has gradually started to roll out these new norms and very few dams have been assessed using the referred technical procedures. CONAGUA has agreed to prioritize the assessment and rehabilitation/safety improvement of the Cutzamala System Dams as pilots to follow these recent regulations, considering that these dams are considered national priority infrastructure for ensuring safe and reliable water supply to the VMMA. CONAGUA will conclude the assessment of the Cutzamala System Dams following the 2015 regulations mentioned above during the first two years of Project implementation. The experience gained through the Project's support for compliance with the 2015 regulations will enable CONAGUA to better comply with the dam safety procedures across the country.

Projects on International Waterways
OP/BP 7.50

No

OP 7.50 is not triggered as the Project will not finance activities involving the use or potential pollution of international waterways.

Projects in Disputed Areas OP/BP 7.60

No

OP 7.60 is not triggered as the Project will not finance activities in disputed areas as defined in the policy.

KEY SAFEGUARD POLICY ISSUES AND THEIR MANAGEMENT

A. Summary of Key Safeguard Issues

1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:

The Project is classified as Environmental Category B under OP 4.01 on Environmental Assessment, and its overall safeguards risk at the Appraisal stage is rated "Substantial", the Environmental Risk being Substantial. Even if most of the Project works and activities consist of improving existing infrastructure, the environmental risk is Substantial due to dam safety aspects and the location of the civil works envisioned under Component 1 in two Protected Natural Areas (ANP). Overall, the Project is expected to produce positive environmental and social impacts through improved water management in the Valley of Mexico. No large-scale, significant or irreversible environmental impacts are



expected. CONAGUA has developed an ESMF to guide the management of the Project to further reduce environmental and social risks and potential negative impacts and maximize positive impacts.

The Project's Social Risk at the Appraisal stage is rated "Moderate", and OP 4.10 and OP 4.12 are triggered. CONAGUA has developed a Social Assessment (SA), IPPF and RPF. The SA and further monitoring during Project preparation concluded that the Project is not expected to generate negative social impacts on indigenous peoples or other stakeholders. The Project alleviates risk of water shortages and social disruptions and improves community safety due to closing of nearby, now partly open canals. No involuntary land taking is expected as the Project will be implemented on government-owned land.

Dam Safety

CONAGUA has undertaken dam safety assessment of Cutzamala's System Dams and shared it with the Bank. Some critical dam safety issues have not been sufficiently captured by these reports. Given more strategic and intensive use of some storage dams, the safety and sustainability of the storage dams will be a critical consideration for successful Project implementation. Also, the dam safety assessment and management capacity needs to be enhanced in line with the 2015 Mexican dam safety regulations. The emergency preparedness plans and operation and maintenance plans will be prepared based on proper dam safety risk and downstream consequence assessment given their high hazard of downstream areas.

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:
No indirect and/or long term negative impacts are foreseen due to anticipated future activities in the Project area.

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.
Not applicable.

4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described.

CONAGUA has proven knowledge and experience in applying World Bank safeguard policies through several Bank-financed projects. All capacity building activities incorporate relevant safeguard principles and Environmental, Social, Health and Safety (ESHS) good practices. CONAGUA has successfully developed and managed mechanisms to deal with complaints, suggestions and requests for information based on the country's legal regulations: Constitution of the United States of Mexico, Federal Law on Transparency and Access to Public Information, and Federal Law on Administrative Responsibilities of Public Servants, among others.

Within CONAGUA, the implementation of the safeguards instruments will rely on a Safeguards Area within the Project Implementation Unit (PIU). Currently six staff are responsible for overseeing activities and implement, document, and follow up the activities of consultation, participation, dissemination and coordination related to the Project implementation, including activities related to compliance with the environmental and social safeguards and related reporting.

The supervision of Project activities will include evaluation of compliance with ESHS requirements, including cultural aspects. CONAGUA and the Project contractors will be responsible for the ESHS management of the Project works. Strong environmental clauses will be included in the terms of reference and contracts to indicate the obligation of the participating contractors to have the necessary management capacity related to ESHS aspects. Moreover, Component 3 and the ESMF foresee opportune capacity building measures.



Dam Safety

CONAGUA will undertake a more comprehensive risk-based dam safety assessment as per the 2015 Mexican dam safety regulations for eight Cutzamala System Dams as pilots, through which CONAGUA would enhance its capacity to better comply with the recent dam safety regulations across the country. CONAGUA has agreed to establish an independent panel of experts on dam safety, whose terms of reference and composition/qualification of the panelists are subject to World Bank review. CONAGUA has also agreed to prepare/upgrade the operation and maintenance plans and emergency preparedness plans for the dams based on proper safety risk and downstream hazard assessments.

5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.

The Project's stakeholders include public and private entities, including civil society, local community leaders, academics, researchers, water users, neighbors to the Project sites, state and federal government officials, as well as the Mazahua, an indigenous peoples group present in the Valley of Mexico.

Two consultations were held:

1. Urban Area (Valley of Mexico). The first consultation was held on December 7, 2017 in the Delegación Gustavo A. Madero, Mexico City. Participants included stakeholders from civil society, local community leaders, academics, researchers, water users, neighbors to the Project sites, and state and federal government officials.
2. Rural area (Cutzamala). The second consultation was held on December 8, 2017, with stakeholders such as community leaders, Mazahua representatives, civil society leaders, academics, researchers, water users, neighbors to the Project sites, and state and federal government officials.

Feedback obtained during the consultations focused on Mazahua requests to national government to (i) strengthen citizen participation mechanisms and mainstream communication and outreach efforts to indigenous communities; (ii) allocate the equivalent of 5 percent of the total cost of works and infrastructure for the implementation of infrastructure and community services; and (iii) ensure the continuation of the integrated basin management. The feedback received through the consultation process was summarized and incorporated in each safeguard document as appropriate.

After the consultations, the ESMF, IPPF and RPF were updated and disclosed by CONAGUA and the Bank on their respective external websites on January 15, 2018. At the end of 2019, the instruments were updated to reflect the reduced scope of the Project investments after confirming the final loan amount of US\$ 120 million, and the revised ESMF, IPPF and RPF were disclosed by CONAGUA and the Bank in December 2019.

B. Disclosure Requirements

Environmental Assessment/Audit/Management Plan/Other

Date of receipt by the Bank	Date of submission for disclosure	For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors
08-Jan-2018	15-Jan-2018	



"In country" Disclosure

Mexico

15-Jan-2018

Comments

An updated Environmental and Social Management Framework was disclosed by the Government on December 17, 2019 and by the Bank on December 18, 2019

Resettlement Action Plan/Framework/Policy Process

Date of receipt by the Bank

08-Jan-2018

Date of submission for disclosure

15-Jan-2018

"In country" Disclosure

Mexico

15-Jan-2018

Comments

An updated Resettlement Policy Framework was disclosed by the Government on December 17, 2019 and by the Bank on December 18, 2019

Indigenous Peoples Development Plan/Framework

Date of receipt by the Bank

08-Jan-2018

Date of submission for disclosure

15-Jan-2018

"In country" Disclosure

Mexico

15-Jan-2018

Comments

An updated Planning Framework for Indigenous Peoples was disclosed by the Government on December 17, 2019 and by the Bank on December 18, 2019

C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting)

OP/BP/GP 4.01 - Environment Assessment

Does the project require a stand-alone EA (including EMP) report?

No



OP/BP 4.04 - Natural Habitats

Would the project result in any significant conversion or degradation of critical natural habitats?

No

If the project would result in significant conversion or degradation of other (non-critical) natural habitats, does the project include mitigation measures acceptable to the Bank?

NA

OP/BP 4.11 - Physical Cultural Resources

Does the EA include adequate measures related to cultural property?

Yes

Does the credit/loan incorporate mechanisms to mitigate the potential adverse impacts on cultural property?

Yes

OP/BP 4.10 - Indigenous Peoples

Has a separate Indigenous Peoples Plan/Planning Framework (as appropriate) been prepared in consultation with affected Indigenous Peoples?

Yes

If yes, then did the Regional unit responsible for safeguards or Practice Manager review the plan?

Yes

If the whole project is designed to benefit IP, has the design been reviewed and approved by the Regional Social Development Unit or Practice Manager?

NA

OP/BP 4.12 - Involuntary Resettlement

Has a resettlement plan/abbreviated plan/policy framework/process framework (as appropriate) been prepared?

Yes

If yes, then did the Regional unit responsible for safeguards or Practice Manager review the plan?

Yes

OP/BP 4.37 - Safety of Dams

Have dam safety plans been prepared?

No

Have the TORs as well as composition for the independent Panel of Experts (POE) been reviewed and approved by the Bank?

No

Has an Emergency Preparedness Plan (EPP) been prepared and arrangements been made for public awareness and training?

No



The World Bank Policy on Disclosure of Information

Have relevant safeguard policies documents been sent to the World Bank for disclosure?

Yes

Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?

Yes

All Safeguard Policies

Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?

Yes

Have costs related to safeguard policy measures been included in the project cost?

Yes

Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?

Yes

Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?

Yes

CONTACT POINT

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Implementing Agencies



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APPROVAL

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